UK NEQAS
Leucocyte Immunophenotyping

Sheffield Teaching Hospitals NHS
NHS Foundation Trust

CD34 Stem Cell Programme

All Participant Report

Sample - 212

Distribution - 151601

Participant ID - 42981

Date Issued - 26 May 2015

Closing Date - 12 June 2015

Machine Used - Facscanto II

Trial Comments

The CD34 trial 151601 was issued to 317 participants for flow cytometric enumeration of CD34+ stem cells.

Sample Comments

The sample was manufactured by UK NEQAS using stabilised CD34+ samples and stabilised leucodepleted blood

Absolute Values Results and Performance

Please note: Performance monitoring for this programme is on absolute values only. Percentage results are shown for information purposes only.

Cell Population	Your Results (cells/µL)	Robust Mean (cells/µL)	Robust SD (cells/µL)
CD34 Absolute Values	125.40	55.46	4.86

Cell Population	z Score*	Performance Status for this Sample	Performance Status Classification Over 12 Sample Period		
			Satisfactory	Action	Critical
CD34 Absolute Values	14.39	Critical	0	2	1

Percentage Values Results and Performance

Cell Population	Your Results %	Robust Mean %	Robust SD %
CD34 Percentage Values	0.54	0.43	0.04

Cell Population	z Score*	Performance Status for this Sample	Performance Status Classification Over 12 Sample Period		
			Satisfactory	Action	Critical
CD34 Percentage Values	2.75	Action	0	3	0

***z Score Limits Definitions**

Please note the scale below is applicable to the tables above and to the z score histograms and Shewhart control charts that follow. It is not applicable to the Cusum control charts.

Sheffield Teaching Hospitals NHS Foundation Trust, a UKAS proficiency testing provider No. 7804, operating UK NEQAS for Leucocyte Immunophenotyping.

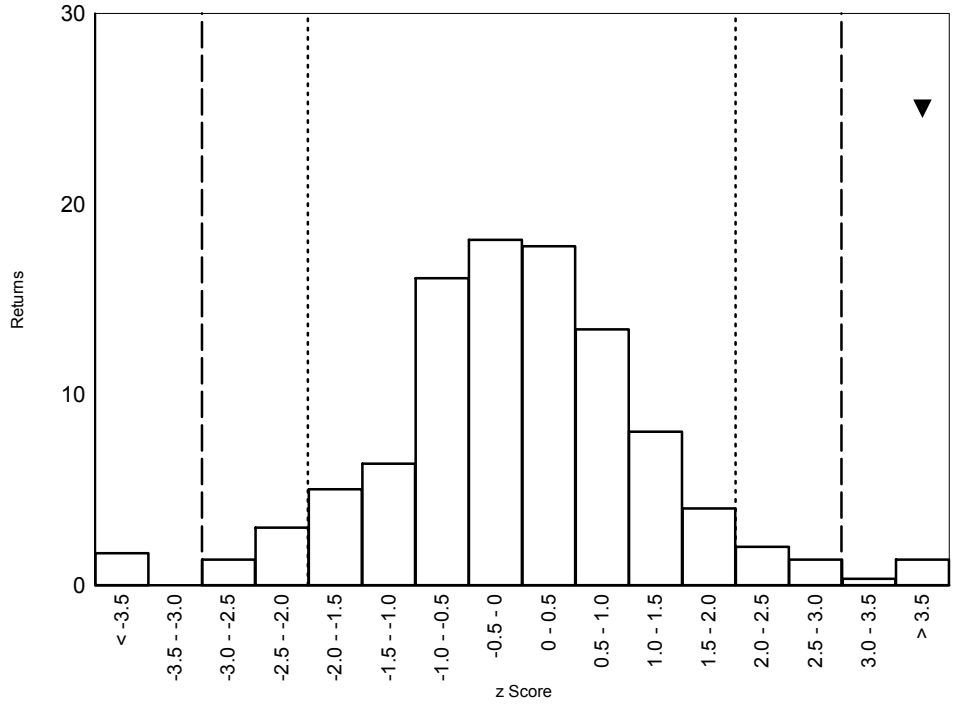
CD34 Stem Cell Programme

Sample - 212

Histograms of Participant z Scores

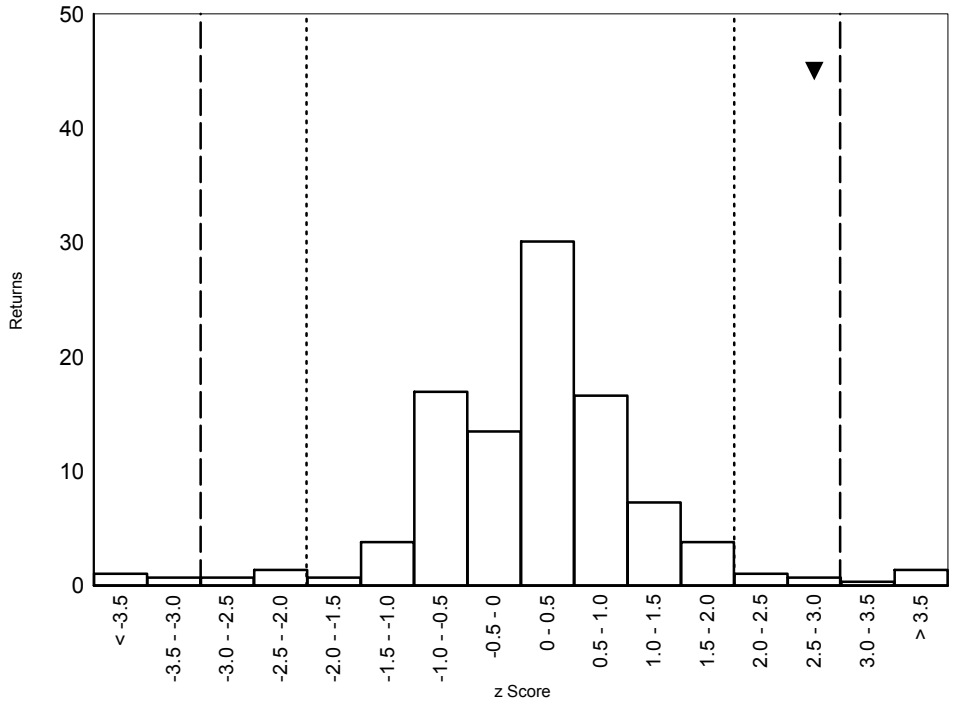
Absolute Values (cells/µL)

Please note ▼ denotes your result



Percentage Values (%)

Please note ▼ denotes your result



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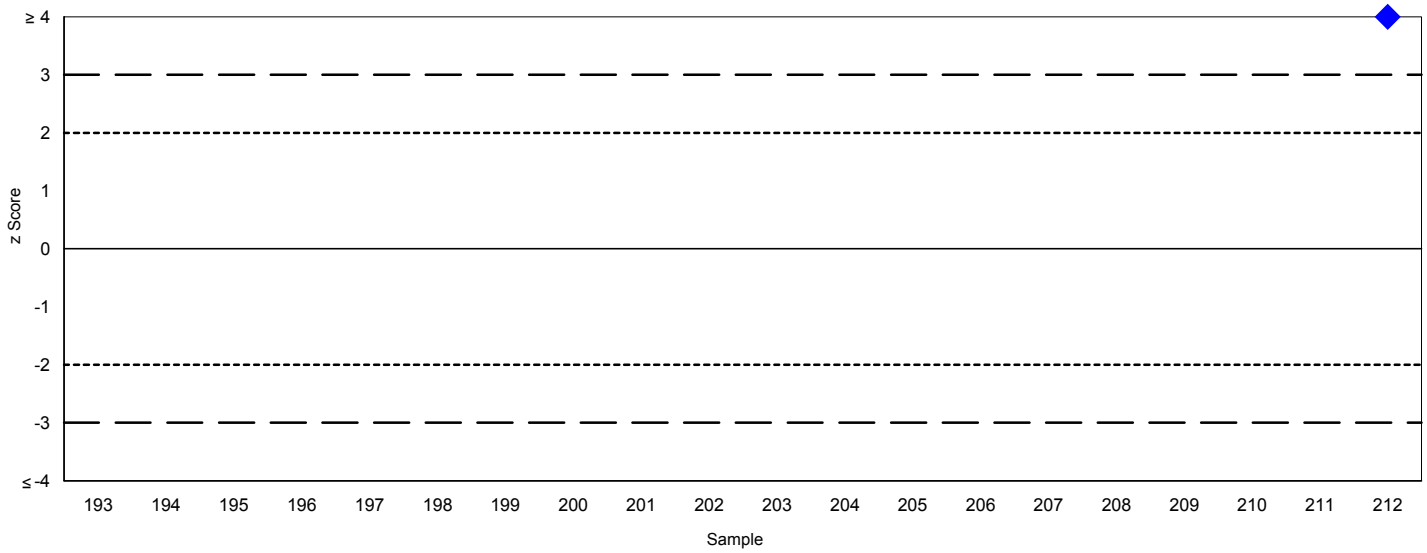
CD34 Stem Cell Programme

Sample - 212

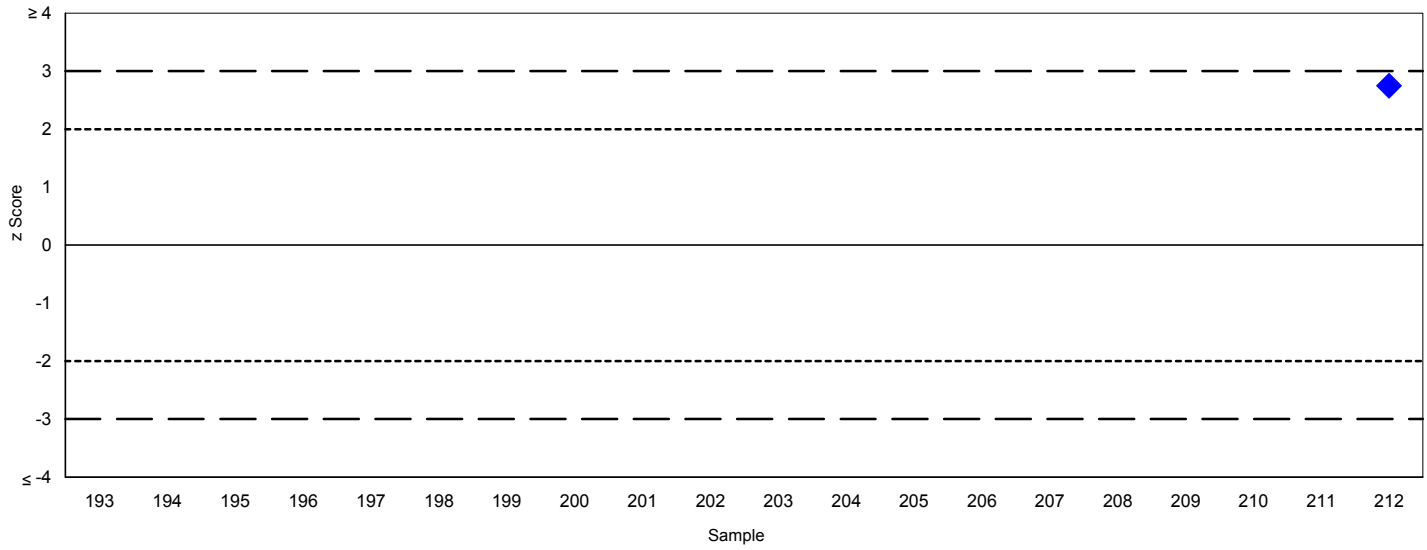
Shewhart Control Charts

(Please note each data point represents a single sample)

Absolute Values (cells/µL)



Percentage Values (%)



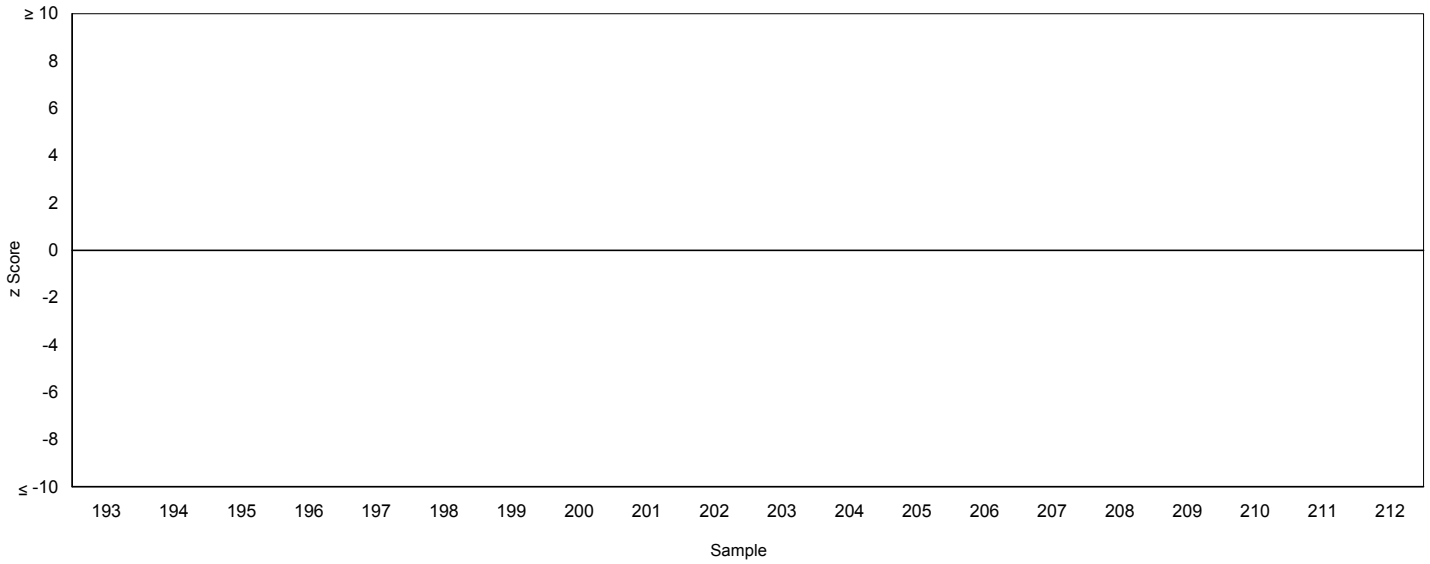
CD34 Stem Cell Programme

Sample - 212

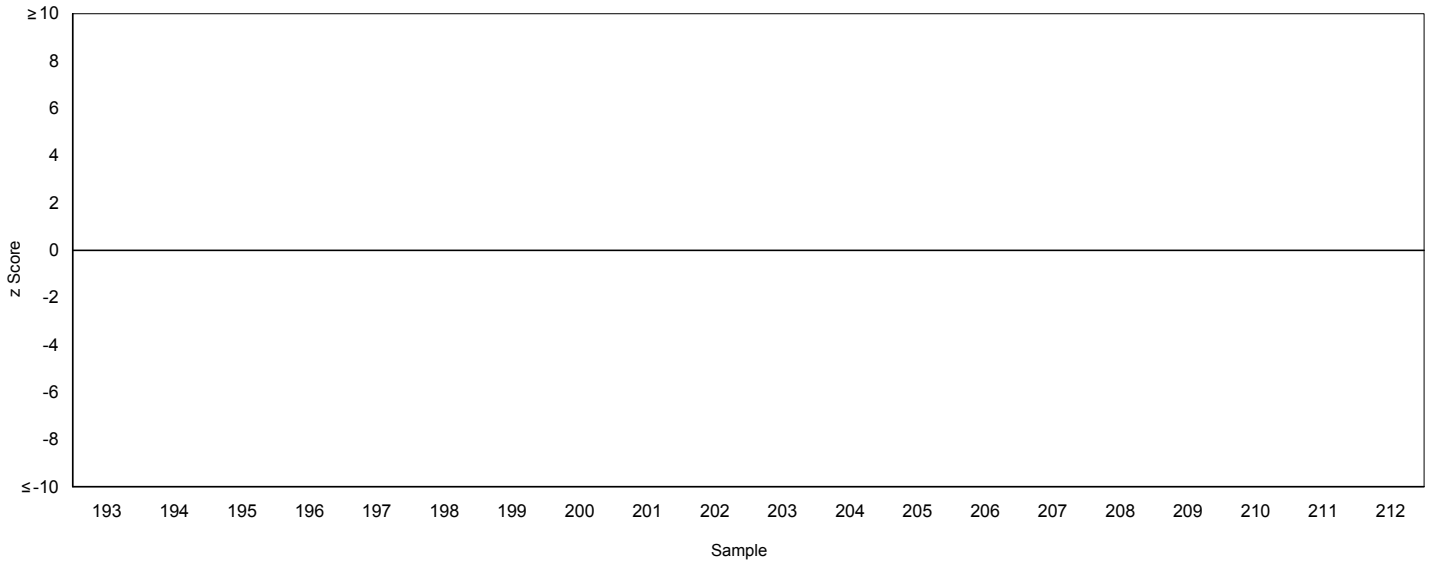
Cusum Control Charts

(Please note each data point represents the sum of the z scores of the current sample and the two previous samples)

Absolute Values (cells/µL)



Percentage Values (%)



CD34 Stem Cell Programme

Sample - 212

Platform Specific Statistics

(Please note only groups of >20 returns are displayed)

Method	Absolute Count Values (cells/µL)			Percentage Values		
	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
FLOW COUNT	84	54.96	4.55	84	0.44	0.03
HAEMATOLOGY ANALYSER WBC	30	54.55	7.47	31	0.44	0.05
TRUCOUNT	148	56.00	4.72	142	0.44	0.03

Lysing Method Specific Statistics

(Please note only groups of >20 returns are displayed)

Method	Absolute Count Values (cells/µL)			Percentage Values		
	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
Ammonium Chloride (NH4CL)	124	56.32	4.98	122	0.44	0.03
Facslyse	-	-	-	20	0.44	0.06
Pharmlyse	52	54.47	4.10	47	0.43	0.03
Stem Kit Lyse	55	54.70	4.39	56	0.43	0.04

Antibody Fluorochrome Specific Statistics

(Please note only groups of >20 returns are displayed)

Method	Absolute Count Values (cells/µL)			Percentage Values		
	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
PE	282	55.42	5.23	277	0.44	0.04

Flow Cytometer Specific Statistics

(Please note only groups of >20 returns are displayed)

Method	Absolute Count Values (cells/µL)			Percentage Values		
	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
Facscalibur	44	54.93	5.73	42	0.43	0.04
Facscanto II	106	56.48	4.71	104	0.44	0.03
FC 500.	56	54.26	5.00	58	0.43	0.05
Navios	44	55.79	5.00	44	0.43	0.03

Gating Strategy Specific Statistics

(Please note only groups of >20 returns are displayed)

Method	Absolute Count Values (cells/µL)			Percentage Values		
	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
BD STEM CELL ENUMERATION KIT	54	57.12	4.93	53	0.45	0.03
ISHAGE	196	54.94	5.58	193	0.43	0.04
STEM KIT	32	55.11	3.88	32	0.43	0.03

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Trial Comments

The CD34 trial 151601 was issued to 317 participants for flow cytometric enumeration of CD34+ stem cells.

Sample Comments

The sample was manufactured by UK NEQAS using stabilised CD34+ samples and stabilised leucodepleted blood

Absolute Values Results and Performance

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Cell Population	Your Results (cells/µL)	Robust Mean (cells/µL)	Robust SD (cells/µL)
CD34 Absolute Values	173.00	98.81	10.21

Cell Population	z Score*	Performance Status for this Sample	Performance Status Classification Over 12 Sample Period		
			Satisfactory	Action	Critical
CD34 Absolute Values	7.27	Critical	0	2	2

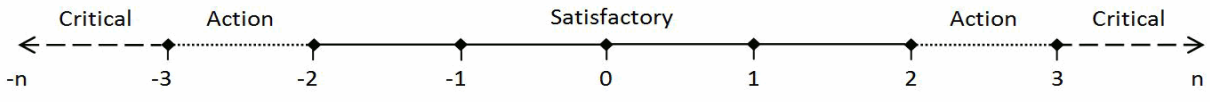
Percentage Values Results and Performance

Cell Population	Your Results %	Robust Mean %	Robust SD %
CD34 Percentage Values	1.79	1.48	0.13

Cell Population	z Score*	Performance Status for this Sample	Performance Status Classification Over 12 Sample Period		
			Satisfactory	Action	Critical
CD34 Percentage Values	2.38	Action	0	4	0

***z Score Limits Definitions**

Please note the scale below is applicable to the tables above and to the z score histograms and Shewhart control charts that follow. It is not applicable to the Cusum control charts.

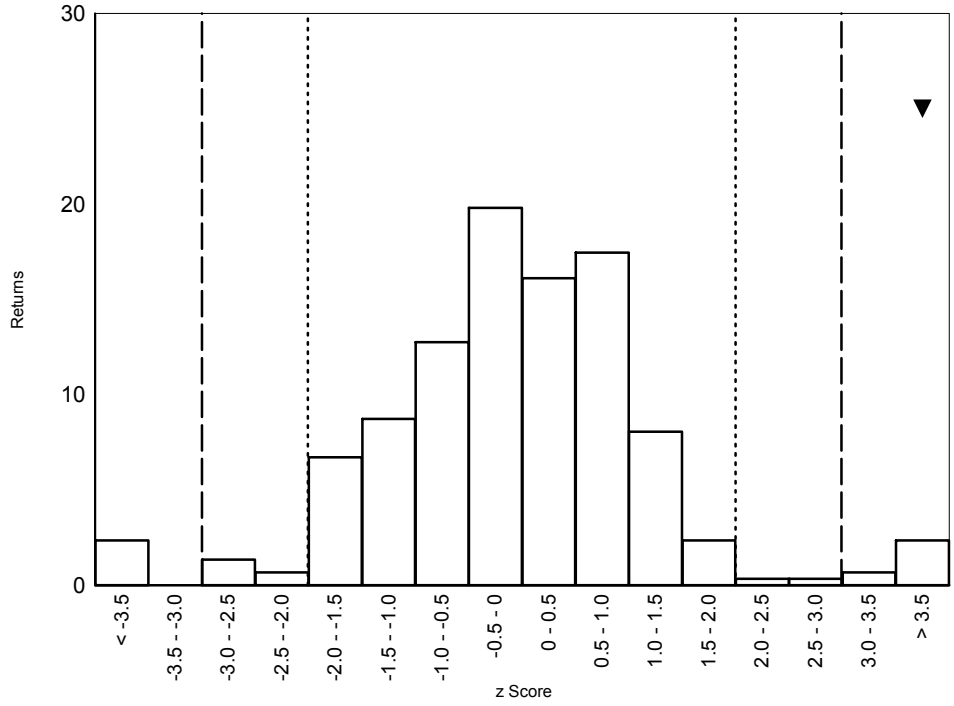


CD34 Stem Cell Programme

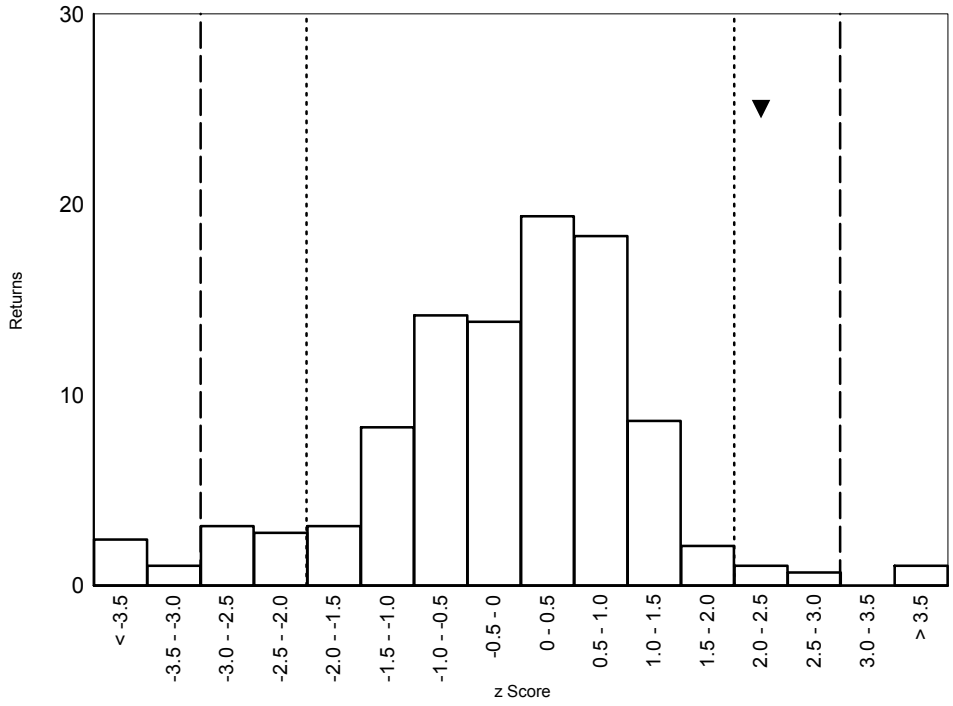
Sample - 213

Histograms of Participant z Scores

Absolute Values (cells/µL)
Please note ▼ denotes your result



Percentage Values (%)
Please note ▼ denotes your result



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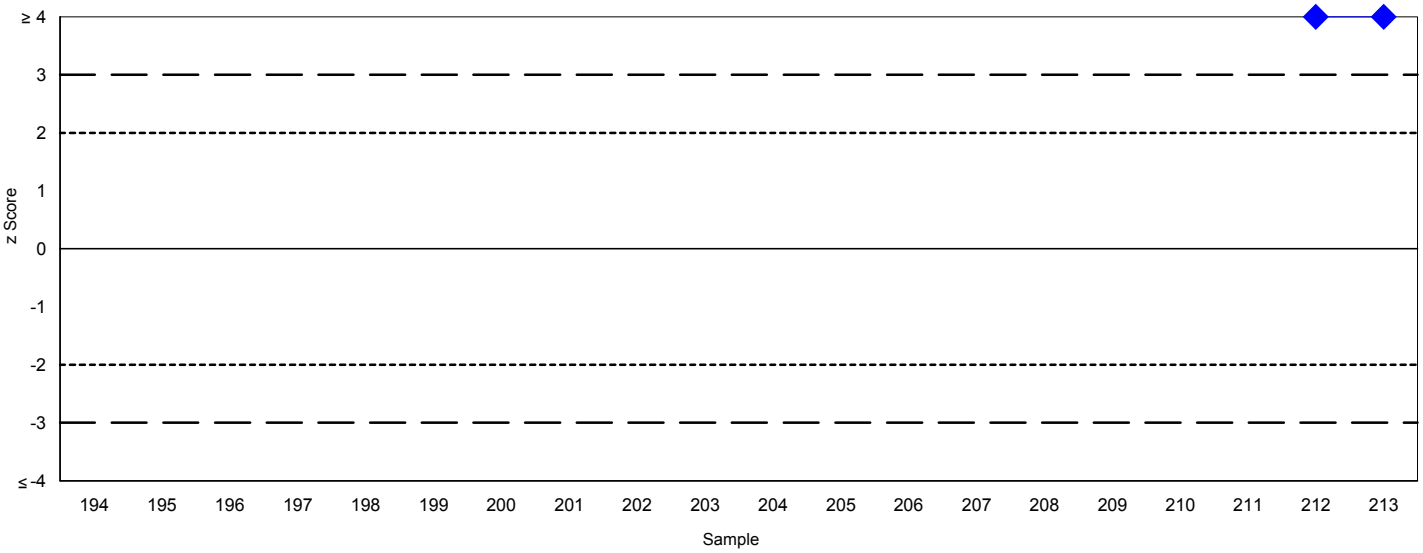
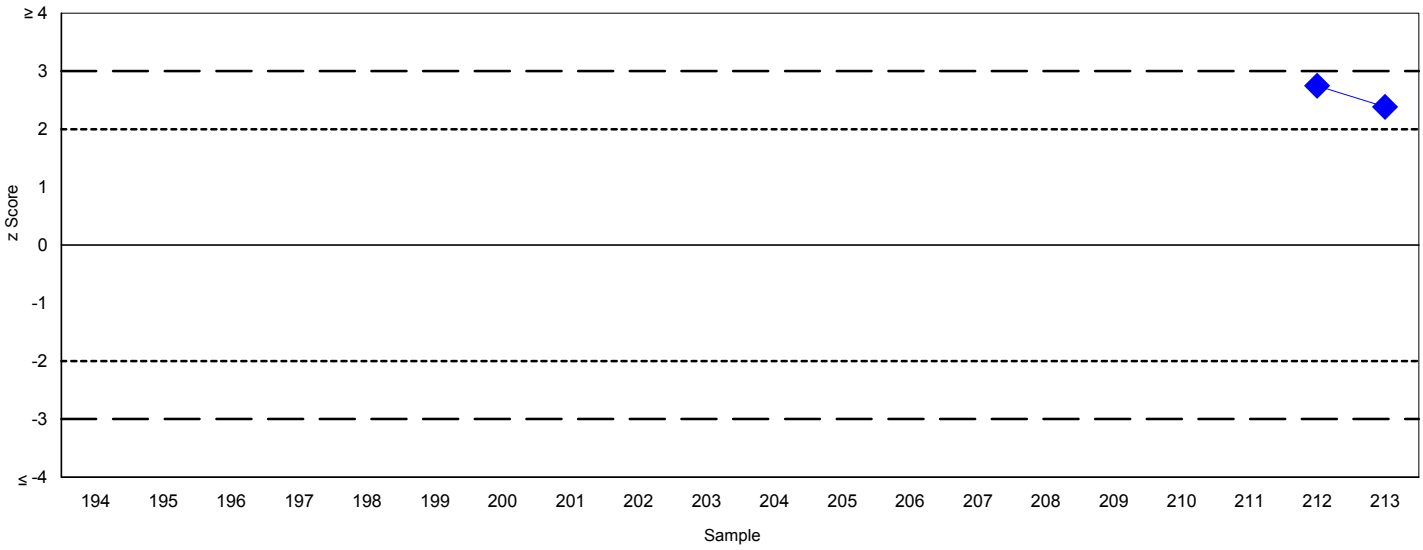
Shewhart Control Charts

(Please note each data point represents a single sample)

Absolute Values (cells/µL)



Percentage Values (%)



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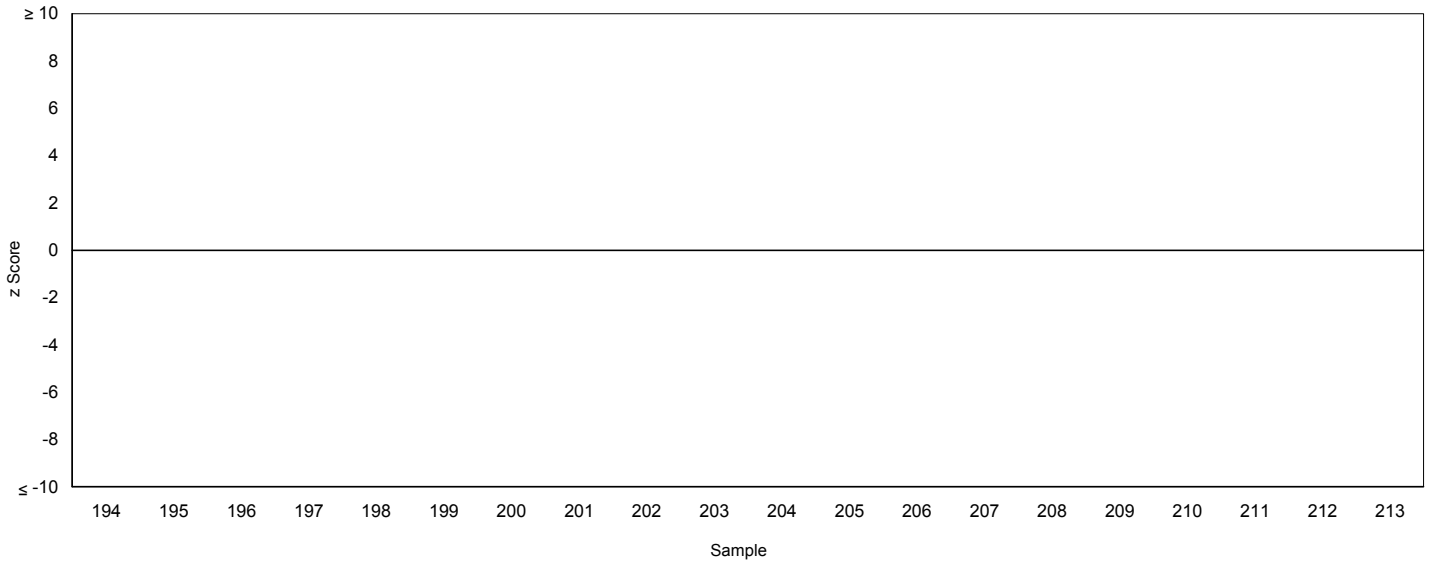

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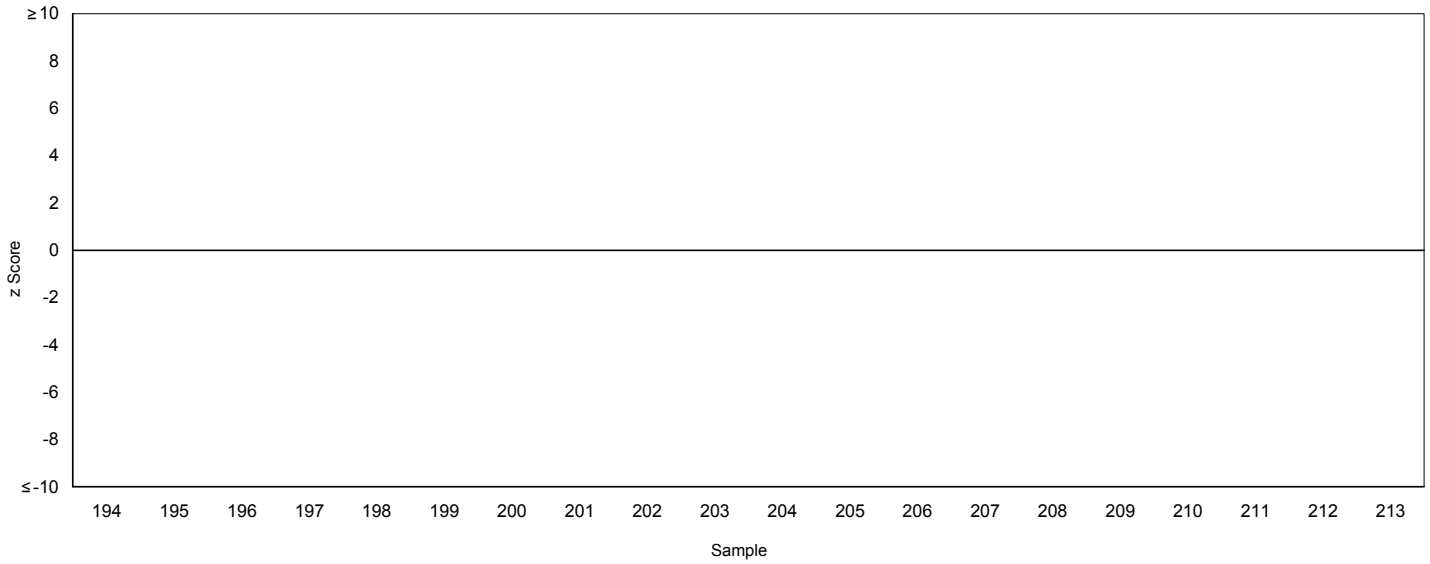

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FLOW COUNT	84	97.95	9.69	84	1.48	0.14
HAEMATOLOGY ANALYSER WBC	30	93.99	12.49	31	1.42	0.17
TRUCOUNT	149	100.08	9.62	142	1.50	0.12

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Method	Absolute Count Values (cells/µL)			Percentage Values		
	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
Ammonium Chloride (NH4CL)	124	99.64	11.05	122	1.48	0.13
Facslyse	-	-	-	20	1.41	0.16
Pharmlyse	52	98.38	9.99	47	1.48	0.11
Stem Kit Lyse	55	96.39	9.26	56	1.46	0.17

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Facscalibur	44	95.57	9.27	42	1.41	0.15
Facscanto II	107	100.90	9.84	104	1.51	0.12
FC 500.	56	95.74	11.06	58	1.44	0.18
Navios	44	99.35	10.84	44	1.48	0.15

Gating Strategy Specific Statistics

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Method	Absolute Count Values (cells/µL)			Percentage Values		
	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
BD STEM CELL ENUMERATION KIT	54	101.34	8.55	53	1.52	0.11
ISHAGE	197	97.33	11.43	193	1.46	0.15
STEM KIT	32	97.86	8.13	32	1.47	0.14

Information with respect to compliance with standards BS EN ISO/IEC 17043:2010

4.8.2 a) The proficiency testing provider for this programme is:
UK NEQAS for Leucocyte Immunophenotyping
Pegasus House, 4th Floor Suite
463A Glossop Road
Sheffield, S10 2QD
United Kingdom
Tel: +44 (0) 114 267 3600, Fax: +44 (0) 114 267 3601
e-mail: admin@ukneqasli.co.uk

4.8.2 b) The coordinators of UK NEQAS LI programmes are Prof. David Barnett and Mr Liam Whitby.

4.8.2 c) Person(s) authorizing this report:
Prof. David Barnett, Director or Mr Liam Whitby, Operations Manager of UK NEQAS LI

4.8.2 d) No activities in relation to this EQA exercise were subcontracted.

4.8.2 g) The UK NEQAS LI Confidentiality Policy can be found in the Quality Manual which is available by contacting the UK NEQAS LI office. Participant details, their results and their performance data remain confidential unless revealed to the relevant NQAAP when a UK participant is identified as having performance issues.

4.8.2 i) All EQA samples are prepared in accordance with strict Standard Operational Procedures by trained personnel proven to ensure homogeneity and stability. Where appropriate/possible EQA samples are tested prior to issue. Where the sample(s) issued is stabilised blood or platelets, pre and post stability testing will have proved sample suitability prior to issue.

4.8.2 l), n), o), r) & s) Please refer to the UK NEQAS LI website at www.ukneqasli.co.uk for detailed information on each programme including the scoring systems applied to assess performance. Where a scoring system refers to the 'consensus result' this means the result reported by the majority of participants for that trial issue. Advice on the interpretation of statistical analyses and the criteria on which performance is measured is also given. Please note that where different methods/procedures are used by different groups of participants these may be displayed within your report, but the same scoring system is applied to all participants irrespective of method/procedure used.

4.8.2 m) We do not assign values against reference materials or calibrants.

4.8.2 q) Details of the programme designs as authorized by The Steering Committee and Specialist Advisory Group can be found on our website at www.ukneqasli.co.uk. The proposed trial issue schedule for each programme is also available.

4.8.2 t) If you would like to discuss the outcomes of this trial issue, please contact UK NEQAS LI using the contact details provided.